

Abstract of the Disclosure

A smoke detector of an obscuration type has an effective light propagation path of substantially greater length than the light propagation paths of conventional obscuration-type smoke detectors to provide increased smoke detection sensitivity without increased background noise or numbers of false alarm incidents. The smoke detector has a light source that emits a light beam that propagates into a detection chamber composed of first and second optical components having respective first and second opposed light reflecting surfaces. The light reflecting surfaces reflect the light beam across the detection chamber multiple times before the reflected light beam is incident on a light detector. The multiple reflections of the light beam increase its effective path length of propagation within the detection chamber to provide the increased smoke detection sensitivity.